BASIX® Certificate

Building Sustainability Index www.basix.nsw.gov.au

Alterations and Additions

Certificate number: A368275

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Alterations and Additions Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary
Date of issue: Monday, 20, January 2020
To be valid, this certificate must be lodged within 3 months of the date of issue.

NSW GOVERNMENT | Planning, Industry & Environment

Description of project

Project address	
Project name	David & Anna Bracey
Street address	35 Norma Road Palm Beach 2108
Local Government Area	Pittwater Council
Plan type and number	Deposited Plan 19651
Lot number	376
Section number	
Project type	
Dwelling type	Separate dwelling house
Type of alteration and addition	My renovation work is valued at $50,000 or more, and does not include a pool (and/or spa).

Certificate Prepared by (please complete before submitting to Council or PCA)
Name / Company Name: J.D.Evans & Co Pty Ltd
ABN (if applicable): 72 001 636 693

Fixtures and systems	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Hot water			
The applicant must install the following hot water system in the development: gas instantaneous.	✓	✓	✓
Lighting			
The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.		✓	✓
Fixtures			
The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating.		✓	✓
The applicant must ensure new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating.		✓	✓
The applicant must ensure new or altered taps have a flow rate no greater than 9 litres per minute or minimum 3 star water rating.		✓	

Construction	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check

Insulation requirements

The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.	✓	✓	✓

Construction	Additional insulation required (R-value)	Other specifications
concrete slab on ground floor.	nil	
suspended floor with enclosed subfloor: framed (R0.7).	R0.60 (down) (or R1.30 including construction)	
suspended floor above garage: framed (R0.7).	nil	
floor above existing dwelling or building.	nil	
external wall: brick veneer	R1.16 (or R1.70 including construction)	
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)	
internal wall shared with garage: plasterboard (R0.36)	nil	
flat ceiling, pitched roof	ceiling: R1.95 (up), roof: foil backed blanket (55 mm)	dark (solar absorptance > 0.70)

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors			
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below. Relevant overshadowing specifications must be satisfied for each window and glazed door.	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door:		✓	✓
Each window or glazed door with improved frames, or pyrolytic low-e glass, or clear/air gap/clear glazing, or toned/air gap/clear glazing must have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. The description is provided for information only. Alternative systems with complying U-value and SHGC may be substituted.		✓	✓
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.	✓	✓	✓
Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.		✓	✓
Pergolas with fixed battens must have battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not be more than 50 mm.		✓	✓

Windows and glazed doors glazing requirements

Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type
			Height (m)	Distance (m)		
W1	E	3.6	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W2	S	0.9	0	0	none	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)
W3	E	1.13	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W4	E	1.2	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)
W5	S	3.78	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type			
			Height (m)	Distance (m)					
W6	S	6.93	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W7	S	3.78	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W8	W	1.08	0	0	eave/verandah/pergola/balcony >=600 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W9	E	1.8	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W10	E	2.7	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W11	S	0.9	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W12	E	1.2	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W13	S	9.45	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W14	S	5.67	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W15	S	2.1	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W16	W	2.1	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W17	W	1.2	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W18	W	1.2	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			

Glazing requirements

Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing		Shading device	Frame and glass type	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
			Height (m)	Distance (m)					
W19	N	3.78	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W20	N	5.04	0	0	eave/verandah/pergola/balcony >=900 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W21	E	1.35	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W22	E	4.95	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
W23	S	1.08	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W24	S	7.43	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W25	S	2.52	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W26	S	7.67	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W27	S	1.08	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W28	W	2.1	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W29	N	1.2	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W30	W	1.8	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			
W31	N	3.72	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window / door no.	Orientation	Area of glass inc. frame (m2)	Overshadowing Height (m)	Overshadowing Distance (m)	Shading device	Frame and glass type			
W32	N	4.65	0	0	eave/verandah/pergola/balcony >=750 mm	improved aluminium, single clear, (U-value: 6.44, SHGC: 0.75)			

Legend
In these commitments, "applicant" means the person carrying out the development.
Commitments identified with a "✓" in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
Commitments identified with a "✓" in the "Show on CC/CDC plans & specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate for the development may be issued.